ASHLEY HINSON
2ND DISTRICT, IOWA

SELECT COMMITTEE ON STRATEGIC COMPETITION BETWEEN THE UNITED STATES AND THE CHINESE COMMUNIST PARTY

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEES
FINANCIAL SERVICES AND GENERAL GOVERNMENT
AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION
HOMELAND SECURITY

Congress of the United States
House of Representatives
Washington, DC 20515–1501

March 31, 2023

The Honorable Hal Rogers
Chairman
Committee on Appropriations,
Subcommittee on Commerce,
Justice, Science, &
Related Agencies
U.S. House of Representatives
Washington, DC 20515

The Honorable Matt Cartwright
Ranking Member
Committee on Appropriations,
Subcommittee on Commerce,
Justice, Science, &
Related Agencies
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Rogers and Ranking Member Cartwright:

As you craft the fiscal year 2024 Commerce, Justice, Science, & Related Agencies Appropriations bill, I respectfully request that you include $225,000 for the Advancing Astrophysics Research Project. The entity to receive the funding for this project would be Coe College, located at 1220 1st Avenue NE, Cedar Rapids, Iowa 52402.

This project would provide an increased ability for Coe College's Physics Program to model the ionosphere of Mars and develop the optimal glass for spacecraft missions to protect against radiation in space and withstand other atmospheric challenges. Coe College's internationally recognized physics program is a leader in astrophysics, astronomy, and glass research, which directly impacts the aerospace manufacturing industry and assists NASA research.

If awarded, this funding would enable Coe College to acquire a high-performance computing unit, as well as Multiphysics and analysis software. This would coincide with Coe's exclusive access to the Robert L. Mutel Telescope in Arizona and their NASA Jet Propulsion Laboratory-funded research on the ionosphere of Mars. Knowledges of Mars is essential for navigating future manned missions. This research is conducted by undergraduates, enhancing the pipeline that creates young scientists and astronomers for the nation.

Glass is an increasingly popular candidate material for radiation shielding due to its transparency, non-toxicity, consistent formulation, cost-effectiveness, natural resistance to radiation damage, and ability to be produced in large sheets or forms. The Coe physics program is working on producing several glasses to find a strong candidate to be used when shielding from radiation, such as during spacecraft missions and medical applications. The High-Performance Computer Cluster is essential to advancing research and for extensive simulations,

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to find the most efficient glass candidate, and to avoid the expense of making dozens of prototype glasses.

Coe College is planning on utilizing these technologies to connect young women and underrepresented students, particularly from rural communities, with their STEM and physics programs. This will allow new opportunities for those interested in STEM careers by having the technology and access to look at spacecraft data and conduct exoplanet research. This project has strong community support from workforce and industry partners that benefit from the advancement and training of these critical technologies. Of note, Coe College also has a strong working relationship with NASA already in place and is capable of executing on this research mission immediately upon receipt of funding.

I strongly urge the Committee to include this community project funding request in the FY24 Commerce, Justice, Science, & Related Agencies Appropriations bill. Thank you for your consideration of this request.

Sincerely,

Ashley Hinson

Ashley Hinson
Member of Congress
Committee on Appropriations